

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte GERHARD MERTEN,  
and HANS MEYA

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Appeal No. 2000-2129  
Application No. 09/090,583

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ON BRIEF

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Before STAAB, McQUADE, and NASE, Administrative Patent Judges.  
STAAB, Administrative Patent Judge.

DECISION ON APPEAL

Gerhard Merten and Hans Meya appeal from the final rejection of claims 6-10, all the claims currently pending in the application.

With reference to Figures 1, 2 and 4, appellants' invention pertains to a chain for a scraper chain conveyor comprising horizontal links 1, each having a constant circular cross-section with a diameter of at least 48 mm all the way around the link, alternating with vertical links 2, each having longitudinal limbs 4 having a flattened approximately oval cross-section. The pitch  $t_2$  of the

horizontal links is longer than the pitch  $t_1$  of the vertical links. The flattened longitudinal limbs of the vertical links give the chain a low profile in the vertical direction, which is advantageous in the environment of use of the chain (e.g., a coal mine), and the difference in pitch of the links facilitates use of the chain with the sprockets found on existing machinery. A further understanding of the invention can be derived from a reading of exemplary claim 6, which appears in the appendix to appellants' main brief.

The references applied by the examiner against the claims in the final rejection are:

Braun et al. (Braun)	4,867,300	Sept. 19, 1989
Grundken et al. (Grundken)	GB 2,127,127	Apr. 4, 1984

Claims 6-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grundken in view of Braun.<sup>1</sup>

Reference is made to appellants' main and reply briefs (Paper Nos. 17 and 19) and to the examiner's answer (Paper No. 18) for the respective positions of appellants and the examiner regarding the merits of this rejection. In support of their position that the claims are patentable, appellants also rely on the declaration filed December 13, 1999 (Paper No. 13).

### Discussion

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<sup>1</sup>In the final rejection, claims 6-10 also were rejected as being unpatentable over Braun in view of Grundken; however, this rejection has been withdrawn by the examiner. See Paper No. 24.

A patent may not be obtained if the differences between the subject matter sought to be patented and the prior art are such that the subject matter *as a whole* would have been obvious at the time the invention was made to a person of ordinary skill in the art. 35 U.S.C. § 103(a). In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) and *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1446 (Fed. Cir. 1990). A *prima facie* case of obviousness is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art. *See In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) and *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. *See In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Among the many limitations found in the appealed claims concerning the geometry of the horizontal and vertical links and their dimensions relative to each other is the requirement found in independent claims 6 and 10 that “said vertical links hav[e] a pitch<sup>[2]</sup> which is approximately equal to three times said second diameter<sup>[3]</sup> of said circular cross-section of said nose-parts of said vertical links, plus or minus 5mm.”

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<sup>2</sup>The pitch of the vertical links is designated “t<sub>1</sub>” in appellants’ Figure 4.

<sup>3</sup>The second diameter of the circular cross-section of the nose parts of the vertical links is designated “d” in appellants’ Figure 3.

In arguing against the rejections advanced by the examiner in the final rejection, appellants argue, among other things, that the combination of references cited against the claims “does not disclose, suggest, or make obvious a scraper chain having . . . a pitch equal to three times the diameter of the circular cross-section of the nose-parts of the vertical links” (appeal brief, paragraph spanning pages 6-7). Appellants also argue that Braun “has no discussion of this relationship because obviously Braun did not consider that this relationship has any bearing on the workings of his invention” (reply brief, page 4).<sup>4</sup>

We have carefully considered the examiner’s position in rejecting the appealed claims as being unpatentable over Grundken in view of Braun. In particular, we have noted the examiner’s position as expressed on page 8 of the answer that it would have been obvious in view of the teachings of Braun to have provided the chain of Grundken with horizontal links having (1) a pitch at least 10% greater than the pitch of the vertical links and (2) an outer width approximately 30% greater than the outer width of the vertical links. The examiner also posits that (3) the limitation of the 48 mm circular diameter for the horizontal links would have been an obvious matter of “design

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<sup>4</sup>This argument in the reply brief was one of several made therein that necessitated this application being remanded back to the examiner (see Paper No. 22) for the purpose of issuing a supplemental examiner’s answer to respond to the arguments presented by appellants. In replying to that remand (see Paper No. 24), the examiner withdrew the rejection of the appealed claims as being unpatentable over Braun in view of Grundken, but declined to present any additional rationale in support of the remaining rejection of the appealed claims as being unpatentable over Grundken in view of Braun.

choice,” and that (4) the modified 48 mm chain of Grundken would have a strength at least equal to that of a size 48 standard link chain.

Our difficulty with the examiner’s position as set forth in the answer is that even if we were to agree with the examiner on each of the above noted points (1) through (4), it is not apparent to us that the claimed subject matter *as a whole* would result. This is so because the examiner has not accounted for the argued limitation of the independent claims that the vertical links have a pitch ( $t_1$ ) that is approximately equal to three times the second diameter ( $d$ ) of the circular cross-section of the nose parts of the vertical links, plus or minus 5 mm. In this regard we note, as did the previous merits panel in their remand (see Paper No. 22, page 2, footnote 1), that while the examiner determined (see page 5, lines 5-9 of the answer) that the pitch of the vertical links in Braun is approximately 3 times the 42 mm diameter of the nose parts of the vertical links, the examiner has not addressed how or why this disclosure would meet this limitation within the context of the claimed invention as a whole. More particularly, the examiner does not appear to rely on Grundken for a teaching of this limitation, and the examiner has not explained, and it is not apparent to us, how and why the disclosure of Braun noted by the examiner on page 5 of the answer would have suggested providing Grundken’s chain with a similar relationship, especially when the examiner also proposes making a number of changes to the chain of Grundken (see points (1) through (4) above) that would presumably impact on the geometry of the vertical links of Grundken’s chain.

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For these reasons, the examiner has not established a *prima facie* case of obviousness of the claimed subject matter *as a whole*, and it is unnecessary to consider appellants' evidence of nonobviousness (i.e, the above noted declaration filed December 13, 1999).

The rejection of claims 6-10 as being unpatentable over Grundken in view of Braun is not sustained.

The decision of the examiner is reversed.

REVERSED

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LAWRENCE J. STAAB  
Administrative Patent Judge

JOHN P. McQUADE  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

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